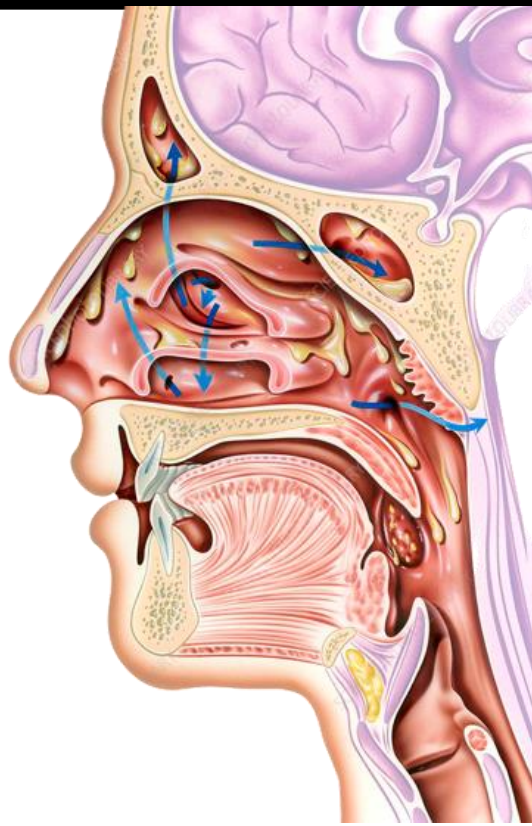
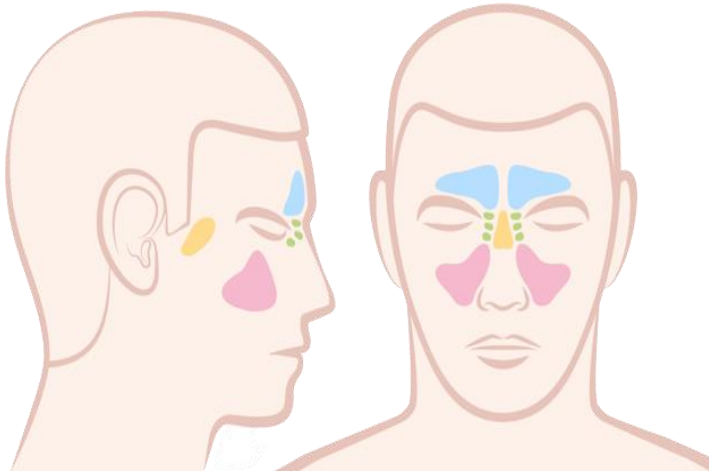
Practical Phytotherapy
Respiratory Tract Disorders

Upper Respiratory Tract Disorders

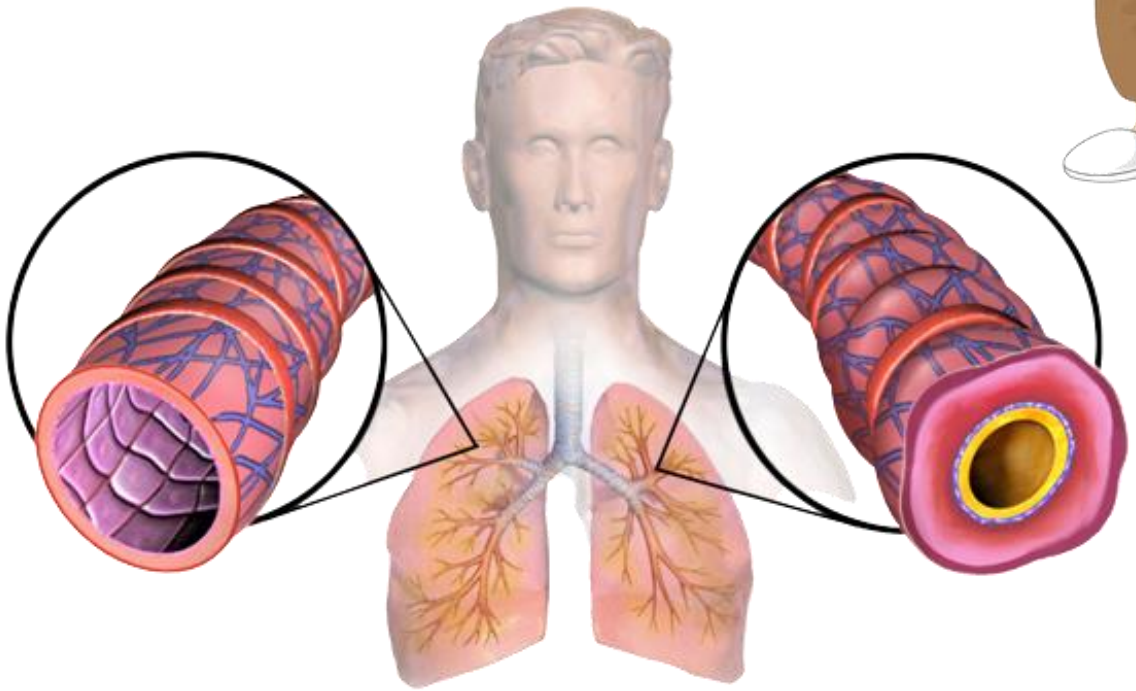


- Rhinitis حساسية التهاب الانف
- Common cold البرد
- Influenza الانفلونزا
- Tonsillitis التهاب اللوز
- Pharyngitis التهاب الحلق
- Sinusitis التهاب الجيوب الانفية



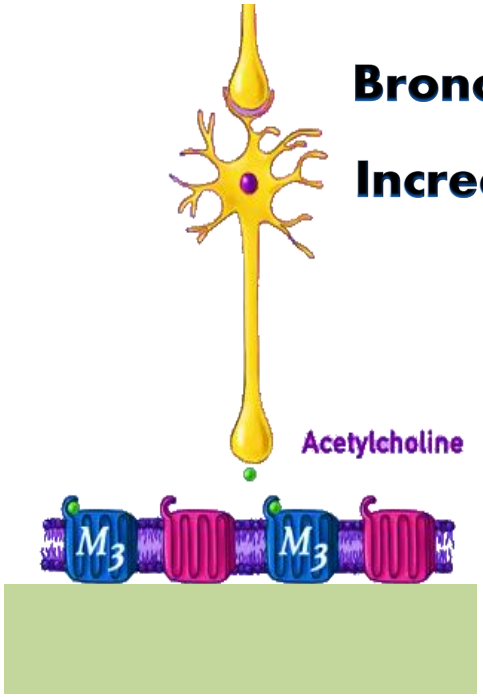
Lower Respiratory Tract Disorders

- Cough الكحة
- Asthma الربو الشعبي - الازمة الصدرية
- Bronchitis التهاب شعبي



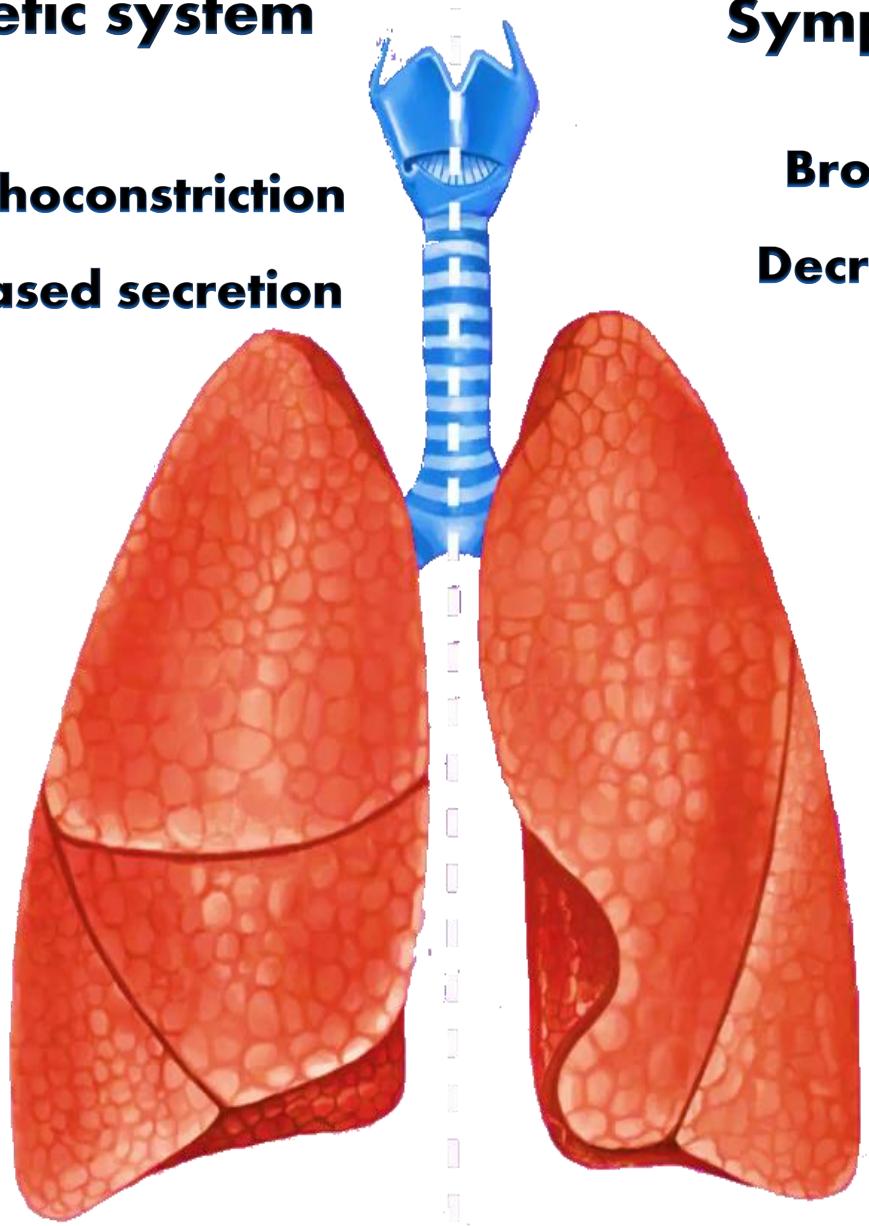
Respiratory Tract Disorders

Parasympathetic system



Bronchoconstriction

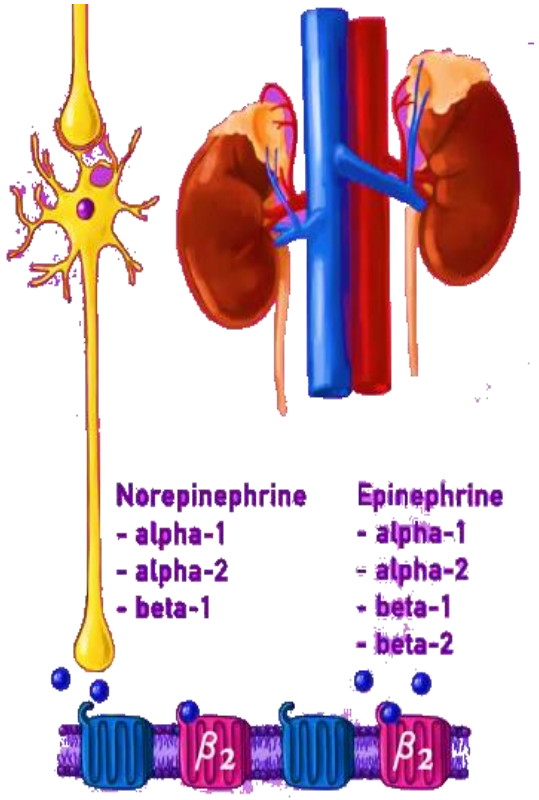
Increased secretion



Sympathetic system

Bronchodilatation

Decreased secretion

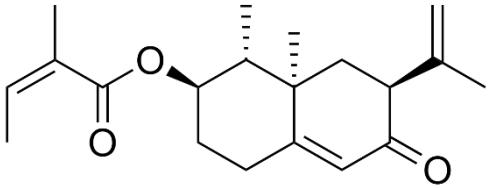


Allergic Rhinitis {Hay fever}

- Nose lining Inflammation

  {Dust - fibers - pollens}

- Treatment



1- Butter bur herb

Sesquiterpenes Petasins{Antihistaminic}

{Root liver toxic contains pyrrolizidine alkaloid}

2- Peppermint oil decongestant inhaled

3- Eucalyptus oil decongestant inhaled

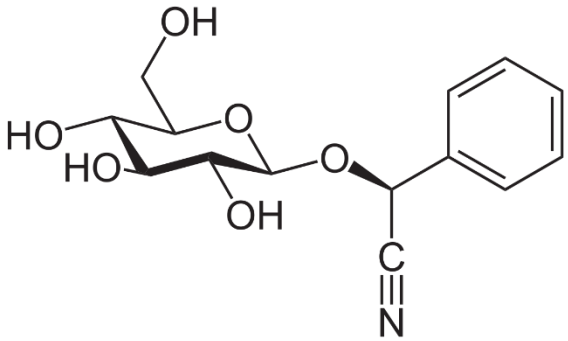
Common Cold

- Viral infection not reaching lung
- Herbal therapy

Iceland moss: Mucilage {Demulcent}

Elderberry: Flavonoids and cyanogenic glycoside {Antiviral}

Linden: Flavonoids and volatile oils {Diaphoretic}



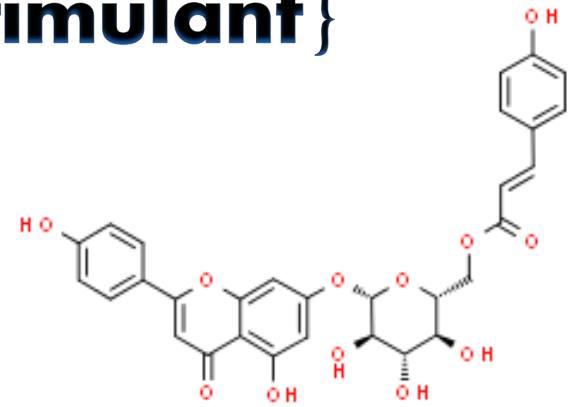
Common Cold

Marshmallow: Mucilage and flavonoids {Demulscent and antimicrobial}

Tussilago: Mucilage, tannins {Demulcent and immunostimulant}

Cinnamon: Volatile oils {Diaphoretic}

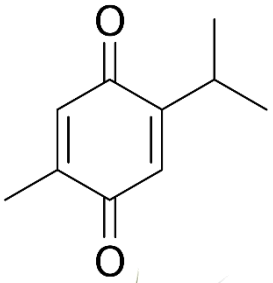
Echinacea: Echinacin {Immunostimulant}



Common Cold

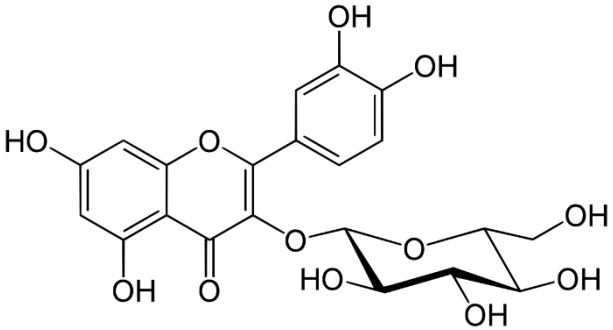
Astagalus: Flavonoids - Polysaccharides

{Immunostimulant}

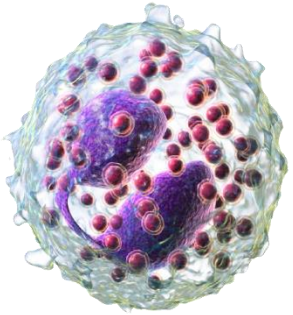


Nigella: Thymoquinone {Immunostimulant - Antiviral}

Citrus fruits: Vitamin C {Immunostimulant}

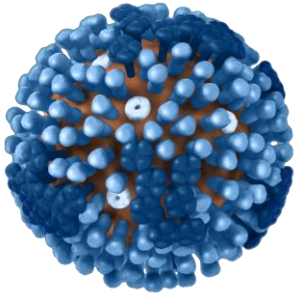


WBC



Influenza

- ❑ **Viral infection reaching lung (more severe)**
- ❑ **Treatment**



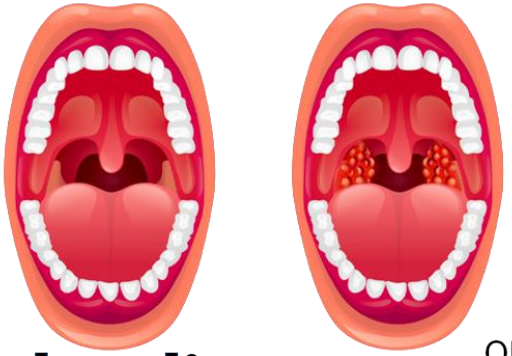
As Common cold

+

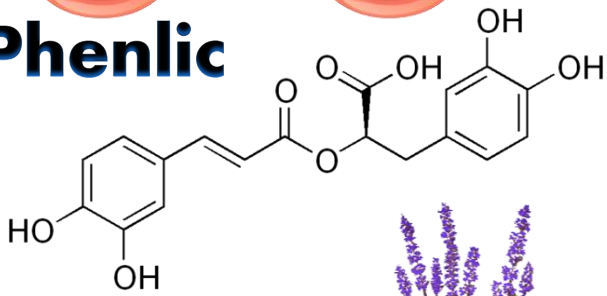
Mullein Verbascum: Contains mucilage

{**Demulscent**}

Tonsillitis



- Inflammation of tonsils
- Treatment

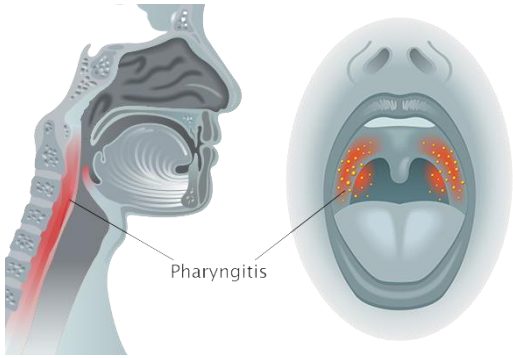


Sage {Gargle}: V.O - flavonoids - Phenlic compounds (Antimicrobial)

Liquorice lozengs: Triterpenoidal saponins – Flavonids {Anti-inflammatory – Antimicrobial}

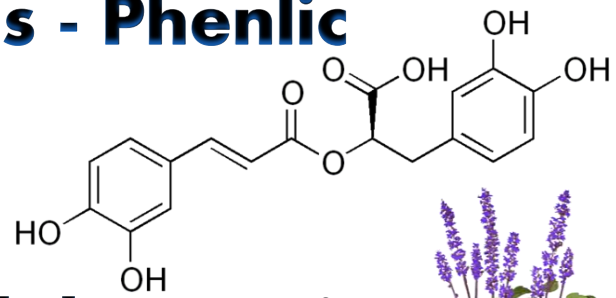
Marshmallow lozengs: Mucilage {Demulcent}

Pharyngitis



- Inflammation of the pharynx
- Treatment

Sage {Gargle}: V.O - Flavonoids - Phenlic compounds (Antimicrobial)



Liquorice lozengs: Triterpenoidal saponins – Flavonids {Anti-inflammatory – Antimicrobial}

Marshmallow lozengs: Mucilage {Demulcent}

Sinusitis

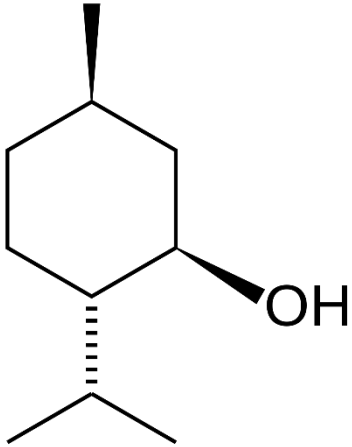
- Inflammation of sinus gland fluid intake,

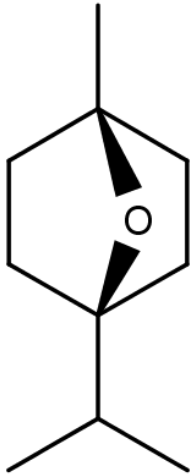
Treatment

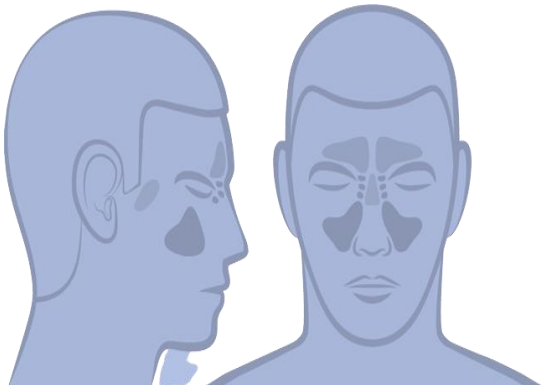
Decongestants

Menthol inhalation

Eucalyptus inhalation







Dry Cough

- Cough no phlegm or mucus produced

- Treatment

Mucilages demulscents: {linden, marshmallow - tussilago}

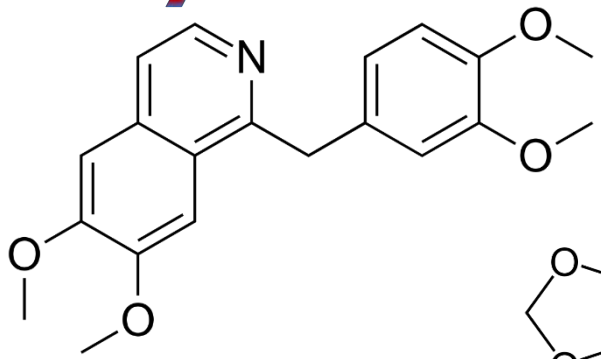
Volatile oils: {Thyme - Anise - Guava leaves}

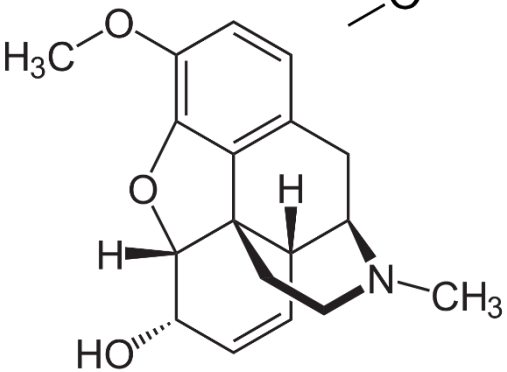
Dry Cough

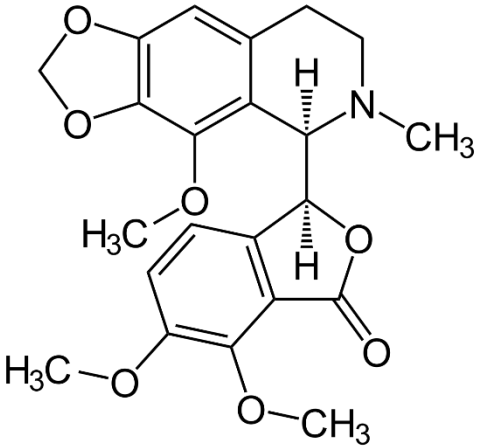
- **Antitussive: Decrease sensitivity of peripheral and central cough receptors**

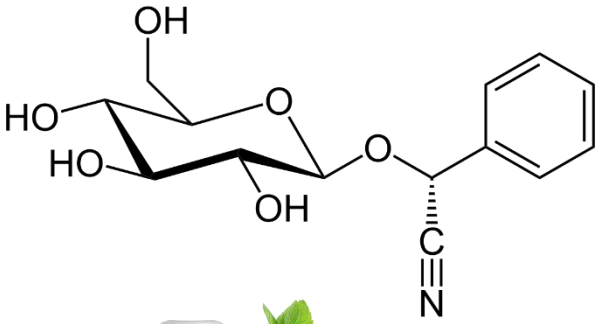
Opiates: Codeine

Wild cherry: Prunasin cyanogenic glycoside}









Productive Cough

- Cough produces mucus (phlegm).

Treatment

Expectorants: Irritate GIT Reflex expectorant

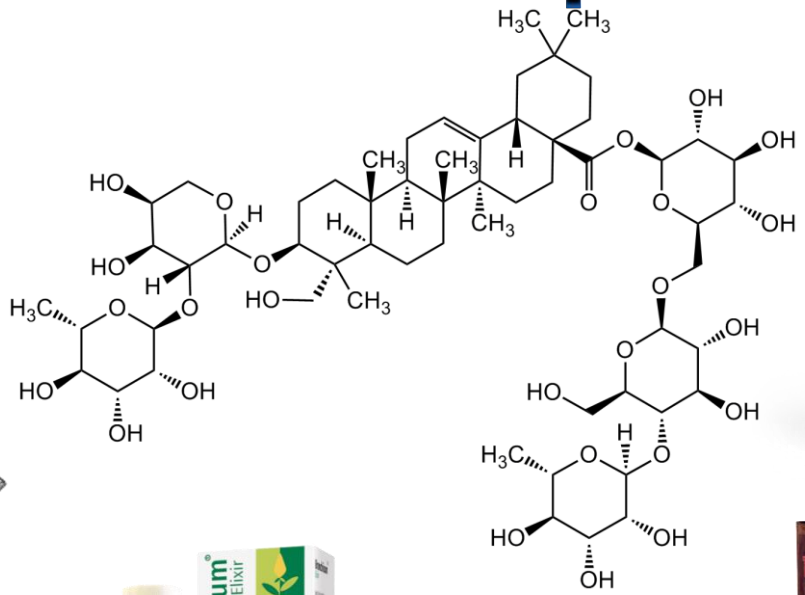
Hedera helix

Liquorice

Ipeca

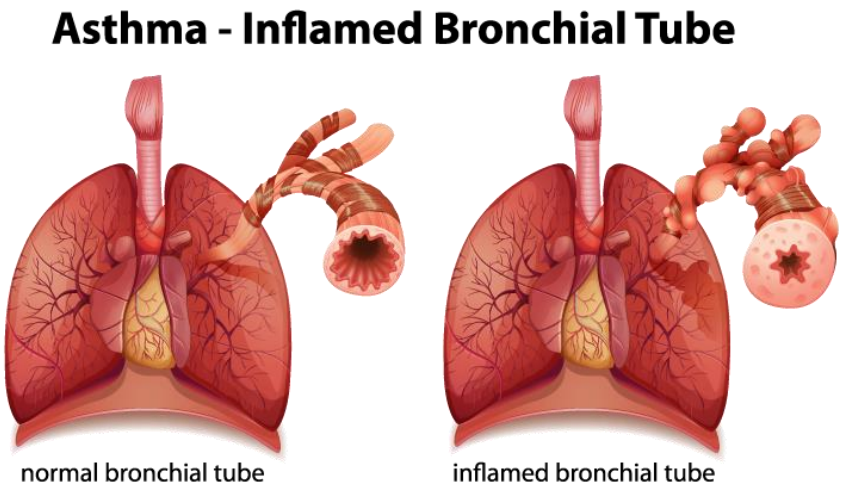
Senga

Primula



Bronchial Asthma

- Airways of the lungs swell, narrow, wheezing, shortness of breath, chest tightness, and coughing



- Treatment

Bronchodilators:

Lobelia: Lobeline {Nicotinic receptor antagonist}

Ephedra: Ephedrine Stimulate B_2 receptors increases ciliary activity and liquefies mucous.

{Palpitation and Hypertension}

Bronchial Asthma

- ❑ **Expectorants: Reflex expectorants**

Ivy leaves {*Hedera helix*}

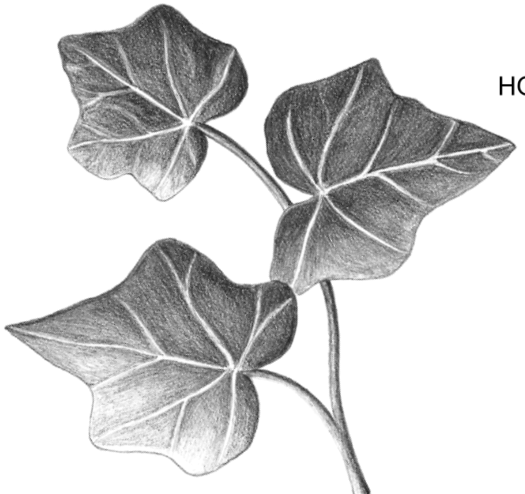
Senega (snake root) triterpenoid saponin

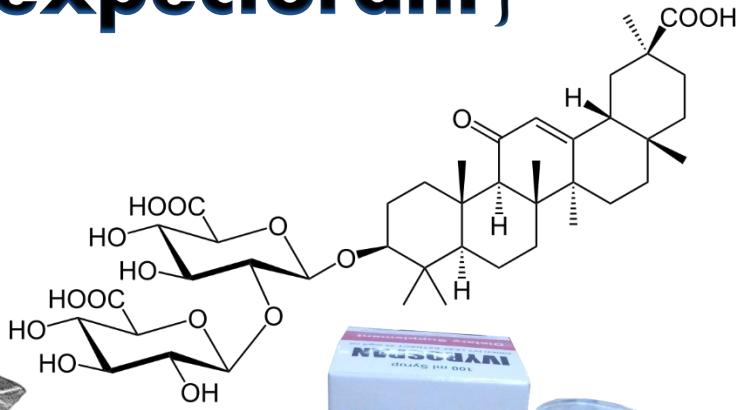
Senegin irritate GIT [Reflex expectorant}

Squill buffadienolides

Ipeca saponin

Liquorice



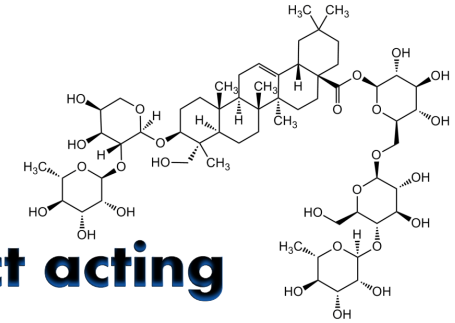


Bronchial Asthma

Ivy Hydra helix saponins

Primula triterpenoid saponins + volatile oils

{expectorant}



Balsam Tolu: Benzyl Cinnamate direct acting expectorant

Eucalyptus oil: Cineole

Thyme oil: Thymol

Anise oil: Anisole

Acute Bronchitis

- Bronchial tubes lining inflammation

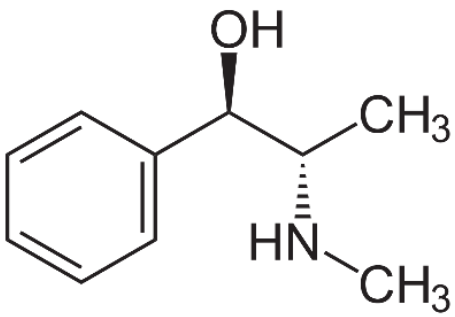
  Upper respiratory

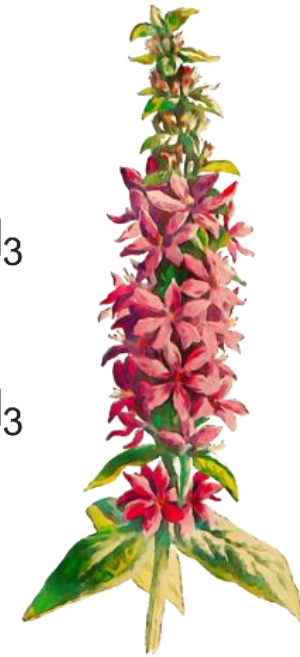
- Treatment

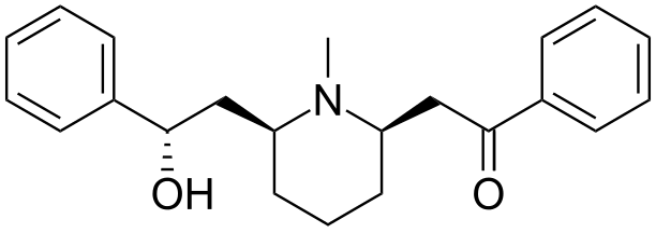
  Ephedra: Bronchodilator

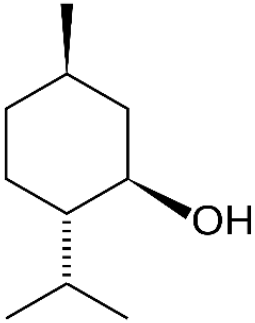
  Lobelia: Expectorant - Bronchodilator

  Menthol: Bronchodilator - Antimicrobial



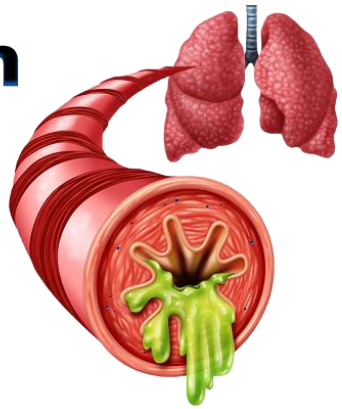




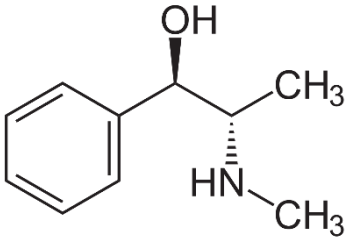


Chronic Bronchitis

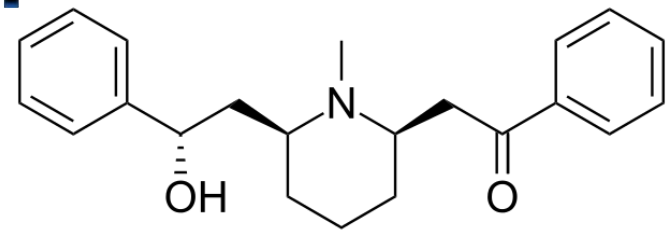
- Bronchial tubes lining inflammation lower respiratory tract



- Treatment



Ephedra: Bronchodilator



Lobelia: Expectorant

Menthol: Bronchodilator – Antimicrobial

Echinacea: Immunostimulant

Case 1

- Dina's family have been experiencing the symptoms of Pharyngitis {sore throat}.

How can you deal with the case?

Treatment:

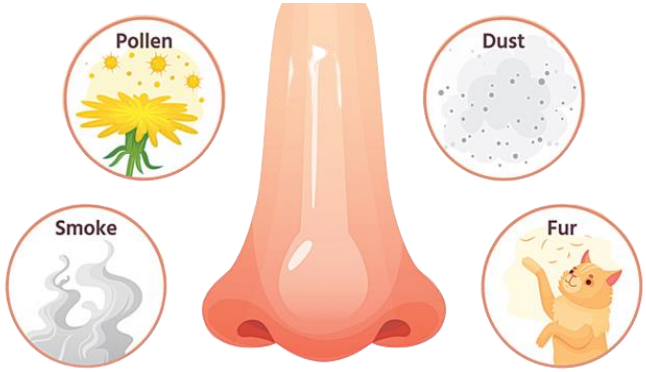
1- **Antimicrobial**: Gargle of Sage

2- **Anti-inflamatory**: Liquorice lozenges

3- **Demulcent**: Marshmallow

Case 2

- Mr. Magdy is a 40-year-old, with seasonal rhinitis. How can you deal with the case?



- **Treatment:**

Butter bur Herb: Sesquiterpenes

Petasins{Antihistaminic}

Peppermint oil: decongestant inhaled

Eucalyptus oil: decongestant inhaled

Practical Exam {10 Marks}

Case

- ❑ Symptoms
- ❑ Disease Name
- ❑ Phytotherapy {3-4 Herbs}
- ❑ Mechanism of action

  Interaction if any
- ❑ Each group 5 students

Thank You